

REMARKS

Claims 1-22 are pending. By this Response, claims 1, 11 and 20-22 are amended. Reconsideration and allowance based on the above amendments and following remarks are respectfully requested.

§112, First Paragraph

The Office Action rejects claims 1-10 and 21 under 35 U.S.C. §112, first paragraph as failing to comply with the written description requirement. Specifically, the Office Action alleges that the recitation of “final image data” in claims 1 and 21 is not supported by the specification. In response, applicants note that claims 1 and 21 have been amended to clarify the features recited therein. Applicants respectfully submit that these amendments address the above noted rejection. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Prior Art Rejection

The Office Action rejects claims 1-3, 5-13 and 15-22 under 35 U.S.C. §102(e) as being anticipated by Lathrop (US 6,288,743) and claims 4 and 14 under 35 U.S.C. §103(a) as being unpatentable over Lathrop. These rejections are respectfully traversed.

Lathrop teaches an electronic camera that includes an image sensor for capturing an image and converting the image to digital image data. The digital

image data is processed through various image processing algorithms. The image processing algorithms are divided into a number of sequential steps that perform these algorithms. Upon completion of the designated image data through one of the sequential steps, the image data is stored in a storage device 32. The image data is stored as “raw” data which is data that has not completed processing and not ready for use by a display or other device. The data is then processed further incrementally through the sequential steps to completion where it is then formatted for display. See column 3, lines 50-67 through column 4, lines 1-37.

Claim 1

Claim 1 recites, *inter alia*, a storage device that stores in a storage medium image data obtained at one of a plurality of middle stages of image processing for processing signals outputted from an imaging device, the image data obtained at completion of the image processing at each of the plurality of middle stages being separately stored and separately identifiable in said storage medium.

Applicants respectfully submit that Lathrop fails to teach the storing of image data after each processing step such that the image data from each of the middle processing stages is separately identifiable.

In contrast, Lathrop discloses a system where the processing of captured images can be halted after a series of steps when the camera is capturing another image. The processing is then resumed after the image has been captured. The image data, after the processing steps have been halted, is stored in a memory

and later accessed and used to continue the processing steps. Thus, the processing is always resumed after being halted by the operation of the shutter button. The data is only temporarily stored and after completion of the shutter button operation the data is subject to further processing which alters the data. However, in embodiments of the present invention, image data is not stored at the completion of each of the processing stages. The image data stored after each of the middle stages is identifiable to that particular stage. Simply stated, the image data obtained and stored at the completion of the middle stages is not subject to further processing and thus separately identifiable.

Thus, applicants respectfully submit that Lathrop fails to teach each and every feature of claim 1 as required.

Claims 11 and 22

Claim 11 recites, *inter alia*, a designating device by which a user designates a desired processing stage out of an image processing sequence to which a plurality of processing stages are sequentially performed ...a controlling device that obtains image data at the stage designated by the designating device.

Claim 22 recites, *inter alia*, designating, by a user, a desired processing stage out of an image processing sequence to which a plurality of processing steps are sequentially performed ... obtaining image data at the stage designated; and storing the image data at the stage designated; and storing the image data and

information in a storage medium, the information indicating to which processing stage the image data has been processed.

In Lathrop, when a user presses the shutter button the “raw” image data that is being processed through the intercriminal processing stages is stored in a storage device. Once the data has been stored, the camera is ready to take another picture. Once the pictures has been taken or the shutter button is not immediately pressed, the processing of the stored image data is again commenced at the next processing stage. See column 5, lines 11-67.

The Office Action alleges that the pressing of the shutter button allows the user to designate what stage of processing to which the user wishes processing of the image to be performed. Applicants respectfully disagree.

When the user presses the shutter button, the user does not know which processing step the image data is currently being processed through or has currently completed. The pressing of the shutter button merely interrupts the processing of the image data. Once the shutter button is released, the processing resumes as normal. Nowhere does Lathrop teach or suggest that a user can designate a processing stage, out of all the image processing stages, to which the image data will be processed. In the embodiments of the present invention, once the data has been processed to the designated processing stage, the processing stops. Lathrop teaches to the contrary by not allowing a user to designate the processing stage and completing processing of the images through all the processing stages.

Thus, in view of the above, applicants respectfully submit that Lathrop fails to teach each and every feature of independent claims 11 and 22.

Claim 21

Claim 21 recites, *inter alia*, storing separately in a storage medium, image data obtained at completion of the image processing at each of the plurality of middle stages and storing in the storage medium information with the image data, the information indicating which middle stage of the plurality of middle stages the image data was obtained.

Lathrop fails to teach storing image data obtained at each of a plurality of middle stages and also storing information indicating which middle stage each of the stored image data was obtained. In contrast, Lathrop teaches storing “raw” data after each stage as a TIFF file. Upon completion through all processing steps, the “raw” TIFF file is converted to a JPEG file format. See column 4, lines 1-17. Nowhere in Lathrop does it teach or suggest that information is stored with the image data obtained at the completion of each middle stage indicating which middle stage the image data was obtained. At best, Lathrop teaches that after each middle stage, the data is stored as “raw” data in a TIFF format. Lathrop does not teach or suggest storing the raw data after each stage and associating an identification with each of the stored data to identify which stage the data was obtained.

Therefore, in view of the above, applicant’s respectfully submit that Lathrop fails to teach each and every feature of claim 21 as required.

Claim 20

Claim 20 recites, *inter alia*, a file naming device that adds a predetermined symbol to a file name of a file in which image data is stored according to each stage at which the image data has been obtained.

As stated above, Lathrop teaches storing data after completion through a middle stage as a TIFF file. An identification to the individual stage is not added as part of the file name. Thus, Lathrop does not teach adding a predetermined symbol to the file name according to each stage at which the image data has been obtained, as recited in claim 20.

Conclusion

In view of the above, applicants respectfully submit that Lathrop fails to teach each and every feature of the claims as required. Accordingly, reconsideration and withdrawal of the rejections are respectfully requested.

Applicants respectfully submit that claims 1-22 are distinguishable over the cited art. Favorable consideration and prompt allowance are earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Chad J. Billings (Reg. No. 48,917) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Appl. No. 09/840,182

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment(s)